

IN THE CLAIMS:

1. (Currently Amended) A battery comprising:

an electrode having at least one surface;

a plurality of nanostructures, disposed on said surface to form a feature pattern on said surface[[,]];

an electrolyte liquid in contact with said nanostructures, and

a fluid disposed within said feature pattern,

wherein said fluid is controllable to reversibly change a degree of penetration of said feature pattern by said electrolyte liquid.
2. (Cancelled)
3. (Previously Presented) The battery of claim 1 wherein said nanostructures are closed cells.
4. (Previously Presented) The battery of claim 1 wherein a temperature of said fluid is increased or decreased to cause said change.
5. (Previously Presented) The battery of claim 3 or 17 further comprising one or more cell electrodes disposed within at least a portion of said closed cells,

wherein, upon causing electrical current to flow through said cell electrodes, a temperature of said fluid increases to reduce said degree of penetration.
6. Cancelled

7. (Withdrawn) A method for controlling the contact of an electrolyte liquid with an electrode, comprising:

providing a plurality of nanostructures disposed in a feature pattern on said electrode;
configuring said electrolyte liquid to be in contact with at least a portion of said nanostructures, and
controllably changing a degree of penetration of said feature pattern by said electrolyte liquid.

8. (Withdrawn) The method of claim 7 wherein said degree of penetration is changed by changing a temperature of a fluid.

9. (Withdrawn) The method of claim 7 wherein said feature pattern includes a plurality of closed cells.

10. (Withdrawn) The method of claim 9 wherein said degree of penetration is changed by changing a pressure of a gas or liquid disposed within a closed cell of said feature pattern.

11. (Withdrawn) The method of claim 9 wherein a temperature of a fluid within at least one of said closed cells is changed by causing electrical current to flow through a cell electrode, said cell electrode disposed within said at least one closed cell, thus increasing said temperature of said fluid.

Claims 12-15 (Cancelled)

16. (Previously Presented) The battery of claim 1 wherein said feature pattern comprises a plurality of posts.

17. (Previously Presented) The battery of claim 1 wherein said feature pattern comprises a plurality of closed cells.

18. (Previously Presented) The battery of claims 3 or 17 wherein said closed cells have a hexagonal cross section.

19. (Previously Presented) The battery of claim 1 wherein said degree of penetration is controlled by changing a pressure of said fluid disposed within a closed cell of said feature pattern.

20. (Previously Presented) The battery of claim 1 wherein said fluid is a gas.

21. (Previously Presented) The battery of claim 1 wherein said degree of penetration is controlled by changing a contact angle formed between said electrolyte liquid and said nanostructures.

22. (Withdrawn) The method of claim 7 wherein said degree of penetration is changed by changing a contact angle formed between said electrolyte liquid and said nanostructures.

23. (Withdrawn) The method of claim 8 wherein said fluid is a gas.

24. (Currently Amended) The ~~method~~ battery of claim 1, wherein said fluid is said electrolyte liquid.

25. (Currently Amended) The ~~method~~ battery of claim 1, wherein said fluid is a gas.

26. (Currently Amended) The ~~method~~ battery of claim 1, wherein reducing a temperature of said electrode causes said degree of penetration to increase.